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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,182	03/19/2004	Paul Demone	16319-220US-1	6744
20988	7590	08/31/2004	EXAMINER MAI, SON LUU	
OGILVY RENAULT 1981 MCGILL COLLEGE AVENUE SUITE 1600 MONTREAL, QC H3A2Y3 CANADA			ART UNIT 2818	PAPER NUMBER

DATE MAILED: 08/31/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/804,182

Applicant(s)

DEMONE, PAUL

Examiner

Son L. Mai

Art Unit

2818

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2004 and 08 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-19 is/are allowed.
- 6) ☒ Claim(s) 20-24, 27 and 28 is/are rejected.
- 7) ☒ Claim(s) 25, 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 10/336,850.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>06-08-04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The preliminary amendment filed 04-08-04 has been entered. Accordingly, claims 12-28 are pending in the application.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 10/336,850, filed on 01-06-03. 33

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 20-24, 27-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Rao (U.S. Patent 5,657,285).

Regarding claim 20, Rao teaches a dynamic random access memory (DRAM) comprising:

- a plurality of memory storage elements located in rows and columns, each memory storage element being coupled to a bit line and a word line (figure 2 shows memory arrays 203 include memory storage elements);

- a row decoder (204 in figure 2) for decoding a row address from an address signal and for asserting a word line signal on a word line corresponding to the decode row address;
- a column decoder (206) for decoding a column address from the address signal and for selecting at least one bit line;
- precharge circuitry (207) for precharging the at least one bit line; and
- timing circuitry (207) for controlling the activation of the precharge circuitry such that the precharging occurs at substantially the same time as the address signal is being decoded by the row and column decoder (figure 3 shows at time when precharge occurs as /RAS2 being high, the address signal ADR1 is being decoded.)

Regarding claim 21, Rao shows in figure 2, sub-arrays 201a, 201b comprise sub-array decoders 204, 206.

Regarding claim 22, Rao shows in figure 2, a data line (such as DATA) is coupled to selected bit line via column decoder 206.

Regarding claim 24, the address register is included in the control circuit 202 of figure 2.

Regarding claim 27, Rao teaches at column 5, lines 25-28, the address signal comprising column address and row address.

Regarding claim 28, Rao discloses at column 5, lines 4-17, the row decoder and column decoder decode the address signal at substantially the same time during an active cycle.

Allowable Subject Matter

5. Claims 12-19 are allowed.
6. Claims 25 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
7. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach or suggest the further limitation of claims 25 or 26, which includes using a word line timing pulse to assert a word line signal on a word line.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yoshimoto (U.S. Patent 6,067,274), Osada (U.S. Patent 6,091,629) and Sunaga (U.S. Patent 6,650,573) disclose sub-arrays being accessed at the same time during read, write and precharge cycles.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son L. Mai whose telephone number is 571-272-1786. The examiner can normally be reached on 8am to 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571-272-1787. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



08-25-04

Son L. Mai
Primary Examiner
Art Unit 2818